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Master Thesis / Work Project

(Non-) Demand Driven Servitization

Strategic Implications for Suppliers from Incorporating Their
Customers Up Front

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**“When the Winds of Change Blow,
Some Build Walls
and
Others Build Windmills”**

- Chinese Proverb

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1. Abstract

This research explores customers' need of and readiness to adapt to a servitization move of their supplier. Insights are gathered from 14 in-depth interviews with customers, consultants, and employees of one of the largest animal health suppliers worldwide. The semi-structured interviews allowed for an open exchange of opinions before a possible move towards a stronger service orientation by a supplier. From these interviews, eight dimensions are deemed important to evaluate options for a servitization of the supplier's business. Findings show that services are considered to become increasingly important in the future but that a goods-dominant logic is still dominant in the industry. The need and readiness for a servitization are estimated differently by the three interview groups. Insights from these different perspectives motivated strategic implications for the supplier for an implementation of a stronger service orientation. Furthermore, these implications are translated into a five-step proposition path: Cohesion, Education, Appreciation, Deprivation, and Preparation.

2. Introduction

Suppliers in the manufacturing industry seem to move from only offering products to offering bundles of products and services or possibly even render products overall to become a sole service supplier (Vargo & Lusch, 2004) as the famous example of IBM shows (Ahamed, Inohara, & Kamoshida, 2013). Whereas reasons for such a change in doing business may be manifold it has commonly been agreed upon that value for customers could be added by adding services (Kastalli & Van Looy, 2013; Vandermerwe & Rada, 1988). Companies thus tap into the field of services, as the customers' perceived value might be raised and therefore enable the firm to create a competitive advantage, which may ultimately pay off through higher revenues (Barney, 1991; Hunt & Morgan, 1995; Lusch, Vargo, & O'Brien, 2007).

However, the “servitization” of one's business, as Vandermerwe and Rada (1988) term the move to becoming more service-oriented in the seminal paper on this topic, has not consistently proven to lead to positive financial gains (Fang, Palmatier, & Steenkamp, 2008; Neely, 2008). This is especially remarkable, as research throughout has not only concluded that a stronger market and customer orientation are essential for firm success (Slater & Narver, 1995), but that a servitization of one's business assumingly covers this aspect (Fang, 2008; Vandermerwe, 1990), especially by involving customers in the development process of new services (Goodman, Fichman, Lerch, & Snyder, 1995; Vargo, Maglio, & Akaka, 2008). Regardless, a common mindset by firms has evolved making them believe to have found a panacea for doing profitable business by simply becoming more service-oriented (Barnett, Parry, Saad, Newnes, & Goh, 2013).

Despite many definitions and thus less consensus on what services exactly are, they have been considered as a separate add-on to products as services are “what goods are not”

(Ordanini & Parasuraman, 2011, p. 3). Nowadays, however, it is striking to note that becoming more service-oriented has become so popular, that this order has changed and even led to an overall paradigm shift for doing business termed in the transition from a goods- to a service-dominant logic (Vargo & Lusch, 2004). Respectively, this implies a greater quantity and possibly quality of services being performed by many companies which in turn makes it harder for them to differentiate themselves from each other (Hunt & Morgan, 1995). In order to avoid this dilemma, firms have attributed more importance to the customers' demands (Reinartz & Kumar, 2003) and put special emphasis on the co-creation with their customers to better assess their needs and wants (Prahalad & Ramaswamy, 2004a) imposing a shift from doing transaction-based to relationship-based business (Keaveney, 1995; Krasnikov, Jayachandran, & Kumar, 2009).

A shift in doing business, however, implies changes not only on the provider's side but also on that of the customer (Menor & Roth, 2007) as "modifications in the sets of competence applied by service providers and/or customers" are required according to Ordanini and Parasuraman (2011, p. 5). However, these very same authors also conclude that research on customers and other stakeholders potentially involved in and affected by such a change has been scarce. Furthermore, they imply that research on "new service provision could benefit from the collection and use of customer knowledge and skills" (Ordanini & Parasuraman, 2011, p. 5). Whereas most studies up-to-date have addressed the adaptation of new services and the improvement of services along the way (e.g. Fang, 2008; Keaveney, 1995; Martinez, Bastl, Kingston, & Evans, 2010; Oliva & Kallenberg, 2003) this research aims at incorporating stakeholders one step earlier. It explores whether customers actually see a need for their supplier to become more service-oriented rather than assuming that simply adding new services will benefit the customer. Furthermore, as has been reasoned, this will be linked to a possible change imposed upon the customers' own business, so to say whether

they are ready for such a change or can imagine change required on their behalf as well. Thus, this research is employed in a business-to-business environment.

As the company Ceva is currently struggling with its service offering and is considering changes and adjustments to it, these circumstances serve as a setting to investigate the stakeholders' opinions exploratively on such a possible initiative by their supplier. By involving three different stakeholder groups based on the foundational premises of Vargo and Lusch (2004) and the model by Ordanini and Parasuraman (2011), strategic implications will be drawn for the supplier based on the gathered insights.

The remainder of this thesis is structured as follows: Section three will give a review of the literature that is relevant for this research. Furthermore, the problem statement and research questions to be investigated are derived from and within this theoretical context. The research design will be scrutinized in section four, followed by its respective data analysis in section five. The discussion of the findings in section six will lead over to theoretical and managerial contributions in the subsequent section. Limitations of this study will be addressed and linked to an outlook in section eight.

3. Literature Review and Research Questions

Research on embedding services in product offerings has been growing for the past 25 years. The topic has been given special attention from both, practical as well as theoretical side, due to the nature that “the increased offering of fuller market packages or “bundles” of customer-focused combinations of goods, services, support, self-service and knowledge” may add value for the customer (Vandermerwe & Rada, 1988, p. 314). This move from offering products only to offering bundles of products and services is what these authors term “servitization” in their seminal paper on this topic (Vandermerwe & Rada, 1988). Besides a new literature stream in academic research that has evolved since, servitization has also drawn

upon particular interest by businesses (Fang et al., 2008) as customers' utility and thus their valuation may be increased by adding services. This in turn may lead to higher customer satisfaction, resulting in loyalty, which may ultimately lead to larger profits for companies (Hallowell, 1996). Therefore, this concept has not only led firms seeking to add value for customers by adding services (Barnett et al., 2013; Baumgartner & Wise, 1999) but has even led to an overall paradigm shift for doing business as Vargo and Lusch (2004) ascertained. In order to thus give a comprehensive overview of the literature regarding this change in business from products to services, this literature review also draws upon literature that has played an important role towards and since the development of the concept of servitization. Insights from sources of competitive advantage (Barney, 1991) in a goods-dominant logic (Vandermerwe & Rada, 1988; Vargo & Lusch, 2004, 2008a) will be linked to research on change management (Kotter, 1996), self-efficacy (Bandura, 2010), and relationship management (Goodman et al., 1995; Sheth, Sisodia, & Sharma, 2000).

Traditionally, companies competed through product offerings (Lusch et al., 2007; Zeithaml, Parasuraman, & Berry, 1985). Moreover, it was commonly accepted that firms either had the choice of following a cost leadership or a differentiation strategy (Davis & Dess, 1984; Porter, 1980). Although differentiation may prove a successful way to escape the dilemma of solely competing in price, which may be caused by eventual product commoditization in an industry (Krugman, 1980), differentiation within the same business also becomes more difficult during the course of time (March, 1991; Shaked & Sutton, 1982). When facing this dilemma, firms may engage in the development of product innovations in order to differentiate themselves from their competitors (Hunt & Morgan, 1995). Product differentiation may thus be considered a necessary condition to survive (Morrison & Roth, 1992) but, eventually, an insufficient condition to thrive within an industry (Barnett et al., 2013) due to increasing difficulty in product-development over time (Danneels, 2002).

However, as companies seek to develop sources of competitive advantage, service innovation, which has been paid less attention to than product innovation (Nijssen, Hillebrand, Vermeulen, & Kemp, 2006), may prove as another opportunity for differentiation. This is especially pronounced in product-mature markets as Vargo and Lusch (2004, p. 1) specify in the evolvement “to a new dominant logic for marketing”, that is to say from a goods-dominant logic to a service-dominant logic (Vargo & Lusch, 2004).

As specified in the seminal paper on servitization by Vandermerwe and Rada (1988) this shift from a goods-dominant logic to a service-dominant logic (Vargo & Lusch, 2004) implies that products and service are somewhat different. Despite a fairly clear understanding of what constitutes a product, lower consensus on what exactly services are or include has been reached. Thus, the characteristics of services have been debated about. For example, whereas Vandermerwe and Rada (1988, p. 315) define that “services are performed rather than produced and are essentially intangible”, Oxford Dictionary’s primary definition constitutes services as “the action of helping or doing work for someone” (Oxford Dictionary). Despite a huge variety of definitions (e.g. Ahamed, Inohara, et al., 2013; Barnett et al., 2013; Oliva & Kallenberg, 2003) five factors have been stated most prevalently throughout academic literature that constitute services: intangibility, absence of ownership, heterogeneity, inseparability, and perishability. Out of these five prominent factors, intangibility, absence of ownership, and perishability can be found with literally any definition of services in some way (Kohtamäki, Partanen, & Möller, 2013). Since Vargo and Lusch (2004, p. 2) argue that services are “the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself”, these authors’ definition incorporates the early conception of services by Vandermerwe and Rada (1988) as well as the dominant factors that have been stated throughout literature. Hence, as the definition by Vandermerwe and Rada (1988) covers

the essential elements, is easily understood and yet leaves room for interpretation on this still evolving topic, it is used as a first step in the interviews for this explorative research setup. Additionally, the elements of the definition by Vargo and Lusch (2004) from their seminal paper on service-dominant logic are employed as follow-up during the course of the interviews for this research.

Whereas competing with tangible products is oftentimes considered to likely lead to a competition in price at some point (Barnett et al., 2013; Shaked & Sutton, 1982), it has been commonly concluded by companies that incorporating services into their portfolio may gain them a competitive advantage (Vandermerwe & Rada, 1988; Vargo & Lusch, 2004) thus leading to higher margins (Barnett et al., 2013; Neely, 2008). It is yet striking that financial gains are sometimes not attributed as expected (Barnett et al., 2013), especially in highly-developed industries for larger firms, who introduced and followed a servitization of their business (Neely, 2008). This is especially noteworthy, as researchers have commonly linked a stronger service-orientation to a stronger customer centricity (Ahamed, Inohara, et al., 2013; Ahamed, Kamoshida, & Inohara, 2013; Fang et al., 2008). This stronger focus on customers, as Homburg, Droll, and Totzek (2008) conclude, is exactly what may enable a company to better assess and match their customers' wants and needs. This in turn, may lead to insights for development and lead to greater differentiation, (Vandermerwe & Rada, 1988) eventually paying off through an anticipated better attribution of larger margins (Gebauer & Friedlo, 2005) despite the potentially higher labor costs and working capital of servitized firms (Barnett et al., 2013; Neely, 2008).

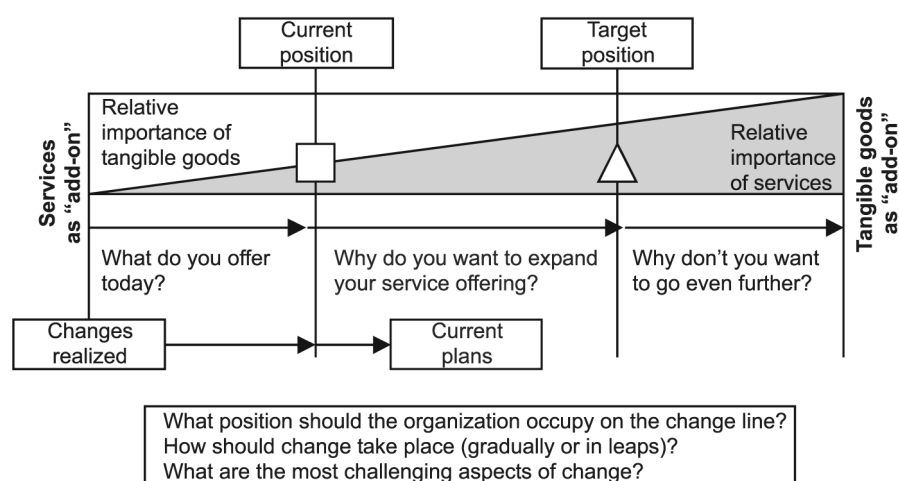
As Barney (1991) states, the four aspects company offerings need to cover to be classified as a sustainable competitive advantage are valuable, rare, inimitable, and non-substitutable. Due to services' nature of being intangible, perishable, as well as through their application of specialized competences, it can be inferred that they cover the latter three

aspects. Whereas these three aspects can commonly be observed from the actual execution or performance of services (Barnett et al., 2013; Vandermerwe & Rada, 1988; Vargo & Lusch, 2004), a quantification of the value of something intangible cannot be assessed as easily (Bontis, Dragonetti, Jacobsen, & Roos, 1999). As Vargo et al. (2008) accredit, this dilemma can be reduced by showing greater customer centricity. Whereas greater customer-centricity on the one hand puts the identification of the customer needs into the center and generally considers a shift towards focusing on the customer necessary for success, this concept also emphasizes a more active role of the customer. By co-engaging with customers their needs cannot only be understood better, but they themselves can contribute by being engaged more actively. Whereas it has been commonly agreed that “co-production” with customers may decrease the chances of failures in a goods-dominant logic (Bendapudi & Leone, 2003; Lagrosen, 2005), it is surprising that when it comes to services, some firms believe to have found a panacea for the success of their business by simply adding services that are possibly of greater value to their customers (Kastalli & Van Looy, 2013). Similar to the co-production of products, this concept has also become important for the development of new services, termed “co-creation” in a service-dominant logic (Prahalad & Ramaswamy, 2004a, 2004b).

Whereas Vandermerwe and Rada (1988) still considered a goods-dominant logic, as value to products could be added by adding services, Vargo and Lusch (2004) find that an actual shift towards a service-dominant logic for doing business has occurred ever since. The same authors a few years later also conclude that “service (...) is the underlying basis of exchange” (Vargo et al., 2008, p. 145). As companies seek to gain competitive advantage over competitors (Barney, 1991) by adding services, they have been co-creating new services with customers, which makes these an operant resource (Vargo & Lusch, 2004), in order to ensure value for them (Prahalad & Ramaswamy, 2004a, 2004b).

The concept of servitization describes the shift of companies to becoming more service-oriented (Vandermerwe & Rada, 1988). The extent or the degree of incorporating services in a servitization move, however, is neither defined nor can a uniform suggestion be found throughout academic or practical research. According to Hockerts and Weaver (2002), for example, three different forms of product-service systems are prevalent. First, “the product-oriented product service system” still stresses the support function of services for products. Second, “the integration-oriented products service system [, which] includes the provision of both products plus services,” stresses the integrated function of the two offers. Third, “the product service system” considers both, products and services, to be essential parts of an offering (Hockerts & Weaver, 2002, as cited by Barnett et al., 2013, p.146). This shows that different combinations of various degrees of servitization are possible and may differ between companies. Oliva and Kallenberg (2003, p. 162) on the other hand show that various different degrees of service orientation can be employed on the product-service continuum as depicted in Figure 1.

Figure 1: Product-Service Continuum (Oliva & Kallenberg, 2003)



Whereas the left hand side of this continuum shows a stronger focus on products, the far right side focuses on services. A horizontal move along the product-service continuum can thus be interpreted as the degree of implementation of products and services in a company's offering, with a sole focus on products on the left hand side and on services on the right hand side of the continuum. Moreover, moving vertically on the axes shows the add-on function of services on the left and products on the right side. Linking the three forms of service orientation by Hockerts and Weaver (2002) to the products-service continuum, a move from the bottom-left corner towards the top-right corner depicts the case where services are being offered with products only as complementary add-on. As a move towards the right on the product-service continuum has been considered to gain companies a competitive advantage (Barnett et al., 2013; Vargo & Lusch, 2004) many firms engage in servitization in order "to remain competitive in the marketplace" (Jacob & Ulaga, 2008, p. 247). A logical consequence of this is, that a greater diffusion of services within an industry therefore takes place. Considering that poor financial performance from offering products was actually one of the triggers for becoming more service-oriented (Lusch et al., 2007; Salunke, Weerawardena, & McColl-Kennedy, 2013; Vandermerwe, 1990) it is noteworthy that financial results from a stronger service orientation have also been rather ambiguous in recent studies (Neely, 2008). Whereas this indicates that simply adding services may possibly not be considered a simple remedy for success (Kastalli & Van Looy, 2013) this also calls for more research regarding the implementation of servitization. Especially since suppliers and customers engage in co-creation of new services it is yet striking that not only research from the customers' point of view has been rather scarce (e.g. Alam & Perry, 2002; Lundkvist & Yakhief, 2004) but furthermore that research in general has set off from the point where a stronger service orientation has simply been assumed of value for the customer. This research thus aims at going back further, so to say to focus on the customers' opinions on a stronger service

orientation up front in order to draw inferences for the supplier. Hence, this research is performed in a business-to-business context, which has received less attention on this topic than the business-to-consumer market. Furthermore, as research on servitization in general is still considered rather new (Barnett et al., 2013) this approach aims at filling a gap by addressing the general problem underlying this research:

“Which strategic implications can a company draw for a servitization of their business from incorporating their customers up front?”

As has been stressed, firms may gain a competitive advantage through differentiating themselves from their competitors with service innovations, so to say by developing new services (Kastalli & Van Looy, 2013; Salunke et al., 2013). In the most comprehensive empirical study on this topic up to this point in time Ordanini and Parasuraman (2011, p. 18), amongst others, conclude that “first, to improve performance via innovation outcomes, service managers would do well to “look outside” the core organization (i.e. collaborate with business partners and customers)”. This aspect of working more closely together with the partner or customer has been found to be a major driver of and for servitization as Lusch et al. (2007) primarily stress in one of their many follow-up articles on the evolvement of a new dominant logic for marketing (Vargo & Lusch, 2004). This notion of co-creation of value by customers has further been supported by Prahalad and Ramaswamy (2004a) who stress that customers were left outside, traditionally. The same authors conclude in a second study that bringing in the customer is especially important since it is not the cost but the customers’ perceived value that determines their willingness to pay (Prahalad & Ramaswamy, 2004b), which is even more difficult to estimate for outsiders for intangible offers (Neely, 2008; Vandermerwe & Rada, 1988; Vargo & Lusch, 2004), which certainly also fits in the business-to-business context. Furthermore, as customers more actively engage in the development of

new offers, the bond between them and the company is fostered (Desarbo, Jedidi, & Sinha, 2001; Krasnikov et al., 2009). On the one hand, the customers' perceived value is increased through the greater certainty to be able to rely upon their suppliers. This higher perceived value may lead the customer to look beyond the sole price of the offering (Reinartz & Kumar, 2003). In turn, the greater perceived value may enable the supplier to charge higher prices (Pralhalad & Ramaswamy, 2004b) without having to fear to lose the customer. This is even more pronounced in today's world where a switch to a competitor could much more simply be evaluated due to the easy accessibility and therefore comparability of prices (Turner & Makhija, 2012). Whereas certainly both, the customer and supplier benefit from a better relationship, concerns especially on the customer side arise as well (Reinartz & Kumar, 2003). As a stronger service orientation shifts the business from a focal point on transactions to relationships, a stronger dependency of the customer on his supplier might be of concern for the client (Lusch & Brown, 1996) as this might cause the customer to get locked-in at some point (Farrell & Klemperer, 2007). Thus, despite the value that customers may gain from a stronger service orientation (Law, Lau, & Wong, 2003) customers face this tradeoff they need to judge before they engage in long-term relationships with their suppliers (Tuli, Kohli, & Bharadwaj, 2007). Hence, especially in industries where many services are already being performed, an even stronger service orientation by suppliers may rather cause concern among its customers, as the additional services may not prove as much a benefit for the customer as the company may assume. Therefore, a crucial research question to ask in order to address the underlying problem statement is:

“To what extent do customers see a need for their supplier to become more service-oriented?”

Besides the relative importance of services that Oliva and Kallenberg (2003) show in their qualitative study these authors furthermore stress the capabilities that are needed for a successful service-transition by a supplier. This is especially pronounced in a business-to-business context where firms may be particularly aware of their partners' internal processes. This approach by Oliva and Kallenberg (2003) again is very closely linked to that of Ordanini and Parasuraman (2011) who attribute great importance to the antecedents and consequences of service innovation on firm performance. According to these authors' conceptions, the further a supplier moves its business operations to the top right corner of the product-service continuum, the more radical changes are also needed internally. Complementary to this, Neely (2008) considers the case of moving all the way to the right on the product-service continuum where services are being sold and products become add-ons (Oliva & Kallenberg, 2003; Vargo & Lusch, 2004, 2008a, 2008b). This concept of a result-oriented product service system addresses exactly that case, where products are replaced by services and take over the former role of services, that is to say a complementary one (Barnett et al., 2013). Furthermore, Neely (2008) suggests another orientation linked to the definition of services: the use-oriented product-service system, which emphasizes the conception that the provider remains owner of a product. Despite the differences in degree of service orientation, however, Slater and Narver (1995) already concluded that such a service-centered move reflects a stronger market orientation similar to the use-oriented service system stated by Neely (2008). However, as Ahamed, Kamoshida, et al. (2013) and Oliva and Kallenberg (2003) point out, such a shift in business requires changes, not only in terms of organizational factors but also in the mindsets of people (Kotter, 1996). The organizational factors that go along with such a change require capabilities to actually implement such a shift in the supplier's business, but also result in a change of their customers' business (Kotter, 1995; Lines, 2004). Therefore, a crucial factor for the success of servitization is represented by the customers' means of enabling and

accepting such a change (Bandura, 2010). A question that might arise in this context is who should be the initiator of such a change as Barnett et al. (2013) recently pointed out. Whereas Oliva and Kallenberg (2003) propose that a step-by-step approach with the supplier taking the initiative, it is yet unclear whether customers value such a shift overall.

Whereas the previous research question addressed the actual need for a stronger service orientation, another concern arises that possibly renders the benefits a customer receives from a stronger service orientation by its supplier. Although the customer-centric approach requires suppliers to focus on their customers' needs (Sheth et al., 2000) and build up a relationship with them (Payne & Frow, 2005), it is questionable whether customers consider themselves and their business operations ready for such a change of their supplier keeping in mind that a change in processes is implied (Martinez et al., 2010) and specific capabilities needed (Oliva & Kallenberg, 2003; Ordanini & Parasuraman, 2011). Considering that just ten years ago Oliva and Kallenberg (2003, p. 170) hypothesized that "most manufacturing firms will not initiate" a move all the way to the right of the product-service continuum anytime soon, it is striking that multinationals like IBM and Michelin have servitized their businesses far to the right on the product-service continuum in order to differentiate themselves from competitors. However, as this transition also represents the most radical change in doing business with its clients, their clients' business operations would hence undergo the most dramatic change as well. Whether the customers are actually ready to adapt their business is therefore of crucial importance. Thus, the last main research question that is emphasized in this research in order to address the underlying problem statement is framed as follows:

"To what extent are customers ready to adapt to a stronger service orientation of their supplier?"

4. Research Design

As Barnett et al. (2013) state in a recently published study, research on the topic of servitization is still rather new. Despite a number of studies that aim to measure the causes and effects of a stronger service orientation quantitatively, it is noteworthy that research on the various stakeholders involved in a firm's transition to becoming more service-oriented has been rather scarce (Ordanini & Parasuraman, 2011). As has been reasoned, this research approaches this topic in a very exploratory nature in order to gather insights from the parties possibly involved in this process and thus impact future outcomes. The business-to-business context, which has received less attention in research up to this date, further motivates the exploratory nature. Taking a qualitative approach for this research is further supported by Kirca, Jayachandran, and Bearden (2005) who state that literature in the field of servitization regarding the involvement of other parties, especially with regard to customer-orientation has not been conclusive and yet limited (Ballantyne, Williams, & Aitken, 2011; Ordanini & Parasuraman, 2011).

The context of this research is the North American animal health industry, specifically the stakeholders of the company Ceva, one of the largest players in North America and the ninth-largest animal health company worldwide (Ceva Corporate Website, 2013). Whereas the choice of only one single industry limits the possibility of generalizability, interindustry structural bias is avoided. Nonetheless, Ceva provided a sufficiently robust sample of interview partners for this research in order to gather insights on the move to a possibly stronger service orientation. This is particularly interesting as the North American animal health industry of roughly 8 billion dollars yearly revenue is dominated by a few, large players (Ceva, 2013). Whereas Ceva has been showing double-digit growth rates in sales for the past four years, products by Ceva and the other four main players in this industry have become increasingly similar (Ceva, 2013). As this industry is considered "large but small", as

those few players know each other and the respective customers very well, customers' engagement with suppliers is often built upon trust. This and the close relationships in this industry have led to various changes in business on both sides, suppliers and customers. Thus, this research addresses the supplier and customer side in order to draw strategic implications for the supplier, since a move by a major player in this industry towards a servitization of its business may have serious implications for the entire industry.

The sampling frame consists of 14 in-depth interviews that were scheduled for one hour each. Overall, ten interviews were performed face-to-face (mean duration = 56.2 minutes, SD = 8.1) and four interviews via phone since physical presence was not possible (mean duration = 44.6 minutes, SD = 6.4). Furthermore, all interviews were recorded and transcribed afterwards with a total of 99 pages of transcripts, font size 12, and single space. An exemplary interview transcript can be found in Appendix A. Any information that would enable the reconstruction of the interview partner, however, has been extracted due to confidentiality reasons. Finally, each interview transcript was coded for the analysis. Two additional people, both PhD candidates in the business field, participated in the coding process independently in order to avoid possible coder bias. Differences in the coding were discussed and resolved, eventually.

The interviews were conducted with non-randomly chosen partners. This purposive sample design was motivated by mainly three reasons. First of all, to gain most comprehensive insights in this multi-million business, the key partners with the right knowledge and expertise needed to be interviewed. This was only possible through direct facilitation of the supplier with its customers. Secondly, since the players in this industry have varied wants and needs, a representative sample of these was meant to be assessed with the chosen variety of interview partners. Thirdly, a split of the research sample in three groups was motivated and deducted by the insights of Vargo and Lusch (2004) and the model

employed by Ordanini and Parasuraman (2011). Lastly, it is to note that the interview partners were briefly introduced to the general topic and purpose of the research in their invitation to participate (see Appendix B for an exemplary invitation letter).

As has been stressed, a move towards the top-right corner of the product-service continuum, which is essentially similar to a greater volume and radicalness of services, also demands a greater change or adaption by customers in their business, respectively. In a recent empirical study that links antecedents and outcomes of servitization, Ordanini and Parasuraman (2011) measure the innovation outcomes of three different drivers of servitization: collaborative competences, dynamic capability of customer orientation, and knowledge interface. These three overarching factors, as has been implied by the foundational premises in theory by Vargo and Lusch (2004), may affect the volume and radicalness of new innovations, which in turn impact firm performance. The interviews thus built upon these three sources to explore insights towards a possible move towards the top-right corner of the product-service continuum.

As Ordanini and Parasuraman (2011, p. 5) argue that “new service provision could benefit from the collection and use of customer knowledge and skills”, the role of the customer as co-creator may positively impact the innovation outcome. Accordingly, one of the three interviewee-groups of this research are customers of Ceva.

The second driver of service innovation outcomes according to their model is the dynamic capability of customer orientation (Ordanini & Parasuraman, 2011; Vargo & Lusch, 2004). Whereas this certainly also involves the customers’ opinions and engagement, Berthon, Hulbert, and Pitt (1999, as cited by Ordanini & Parasuraman, 2011, pp. 6-7) conclude that involving customers “focuses attention on the current customers and their needs, thereby promoting adaptive, rather than new, organizational learning”. In order to cover the past and present needs but also proactively anticipate and thus prepare for the

customers' possibly even latently evolving needs, consultants of the industry are interviewed. These consultants bridge the gap between the supplier and the customers as the consultants, with their professional expertise and experience, have a direct exchange with both parties. Hence, the consultants know the current actual needs of the customers on the one hand, but they also have an overview and sensing of trends within the industry as well as evolving concerns of the customers. Hence, by interviewing consultants, the dynamic of the industry is accounted for. Furthermore, the consultants were asked to put themselves into the role of customers.

Thirdly, Ordanini and Parasuraman (2011) as well as Vargo and Lusch (2004) state that knowledge interface is a crucial factor on service innovation outcome. These authors also conclude that this can be represented by the supplier-employees and their collaboration as well as knowledge-integration mechanisms of and within the firm. Therefore, Ceva employees are interviewed as third source of information for this research. The employees as well were asked to put themselves into the role of customers.

The general interview guideline can be found in Appendix C. An overview of the interviews is presented in Appendix D including only the information that does not violate the confidentiality underlying this research. Furthermore, the order of interviews was randomized. By employing semi-structured interviews and a funnel approach the respective topics were addressed very openly at the beginning and scrutinized more specifically in order to gain most insights (Fassinger, 2005; Grantham, 2007) in this exploratory research. The setup of the interviews can generally be categorized in five sections. At first, an introduction of the interview partners, their background and current status were given as well as a short introduction to the topic and purpose of the research. In a second step, the topic of "services" in general, their understanding, and difference to products were emphasized. In a third step, the need of services was elaborated (*"To what extent do customers see a need for their*

supplier to become more service-oriented?”) and followed by the readiness to adapt to a stronger service orientation by the supplier in a fourth step (*“To what extent are customers ready to adapt to a stronger service orientation of their supplier?”*). The wording as well as specific questions were adjusted according to the three different interview groups. Lastly, the implications for doing business in this industry were addressed followed by the closure of the interview.

Additionally, two focus-group sessions of four hours each with all major clients of Ceva, upper level-management of Ceva, as well as industry experts were held to also create a cuing phenomena by means of opposing ideas of different participants and their comparison. However, due to confidentiality, the opinions and insights from these focus groups were used for company purposes only.

5. Data Analysis

This research explores the customers’ need and readiness to adapt to a stronger service orientation of their supplier by incorporating the customers up front. In order to derive implications for the supplier, three different parties are interviewed. Certainly, as has been argued by Ordanini and Parasuraman (2011), insights from the customers, supplier’s employees, and consultants may lead to valuable insights themselves. Additionally, their differences in perceptions before a change in business also allow for implications for the supplier. In order to do so, the employees and consultants were asked to put themselves into the position of the customers. Within these 14 interviews, eight overarching dimensions were deemed important. The respective descriptive statistics can be found in Table 1. Details on the coding scheme can be found in Appendix E. It has to be stated at this point, that hardly any cells had expected frequencies of more than five and thus violated Chi-Square tests. Descriptive statistics and Pearson Chi-Square correlations are used for cautious interpretation.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Present More Importance	14	1	3	1.36	.633
Future More Importance	14	1	3	1.79	.975
Increase of Service Importance	14	1	2	1.79	.426
Total Service Importance	14	3	6	5.21	.975
Relative Importance of Expected Services	14	3	7	4.79	1.424
Value of New Services	14	5	7	5.79	.579
Need for servitization	14	1	2	1.43	.514
Readiness for servitization	14	1	2	1.36	.497
Valid N (listwise)	14				

The first three categories stress the relative importance of products and services to the customers' business. Whereas products are considered to be more important to the customers' business at present (Mean= 1.36, SD= .633) the interviewees also allocate an increasingly important role to services in the future (Mean= 1.79, SD= .975) as can further be seen in row three (Mean= 1.79, SD= .426) and Table 2.

Table 2: Cross Tabulations of Future Relative Importance of Products and Services

		Future More Importance			Total
		Product	Equal	Services	
Present More Importance	Products	8	1	1	10
	Equal	0	0	3	3
	Services	0	0	1	1
Total		8	1	5	14

Rows four to six consider services only. The *Total Service Importance* shows a mean of 5.21 (SD= .975), putting it in the upper half of the importance scale, despite the higher importance that is accredited to products over services as the *Present More Importance* shows, customers do consider services somewhat important. However, customers are not very aware of the services that they actually deem more important as the mean of the *Relative Importance of Expected Services* of 4.79 (SD= 1.424) shows. These services are simply expected, taken for granted and considered to generally come along with the product purchase, meaning they have a support function. Whereas these services represent the past and current service performances, the value of future services that are not being offered yet, is also located in the upper half of the scale (Mean= 5.79, SD= .579). These services that are not being offered yet clustered around two main themes throughout the interviews: assistance of economic decision-making and more tailored problem-solving, which will be addressed in the discussion in section six.

The overall need for a stronger service orientation shows a mean of 1.43 (SD= .514). Whereas this supports the notion, that the present, expected services are considered more important, this contradicts the rather high *Value of New Services* that are not being offered, yet. As can be seen in Table 3, though, the independent interview groups judge the need for a stronger service orientation by suppliers differently. Whereas all consultants see a strong need

Table 3: Need for Servitization by Group

		Need		Total
		Low Need	High Need	
Category	Consultant	0	4	4
	Customer	5	1	6
	Employee	3	1	4
	Total	8	6	14

for the suppliers to become more service-oriented, few customers or employees do so. As consultants represent the dynamic in this industry and have a close interlink with the customers and their business, this insight will also be addressed for the implications for the supplier in the next section. The respective Chi-Square Test can be found in Appendix F.

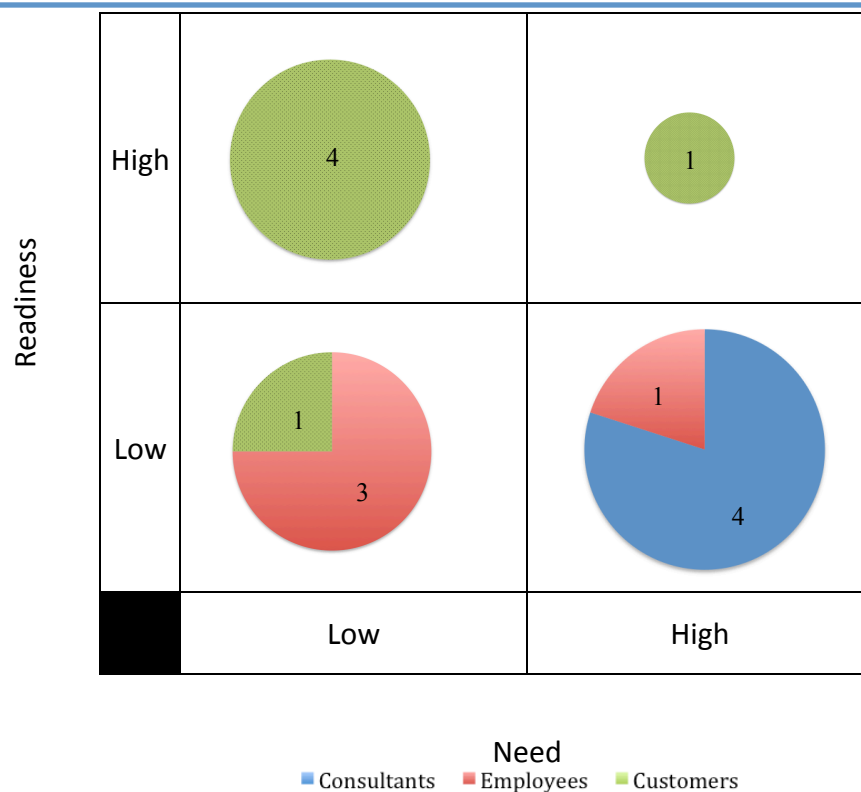
Similarly, but even lower, the readiness to adapt to a stronger service orientation shows a mean of 1.36 and an even lower standard deviation of .497, meaning a more consistent opinion. Despite the nature, that this shift in business would indeed require change, this also interferes with the finding, that non-existing services would be of high value. As can be seen in Table 4, however, the picture here as well is very diverse for the distinctive groups. The consultants and employees see a much lower readiness than the customers themselves. This will further be of objective in the discussion in the next section. The respective Chi-Square Test can be found in Appendix G.

Table 4: Readiness for Servitization by Group

		Readiness		Total
		Low Readiness	High Readiness	
Category	Consultant	4	0	4
	Customer	1	5	6
	Employee	4	0	4
	Total	9	5	14

The frequencies of the specific groups for need and readiness are depicted in Figure 2.

Figure 2: 2x2 Matrix of Need and Readiness according to Groups



The matrix shows that five out of six customers may be ready to adapt to a stronger service orientation of their supplier (upper half of the matrix), but that actually only one of them sees a high need for its supplier to do so. However, neither consultants nor employees consider customers to be ready for this. Whereas all consultants see a high need for suppliers to become more service-oriented, three out of four employees see a rather low need for a possible transition.

The correlations between the eight themes are shown in Table 5. Four significant correlations can be identified here. The strongest significant correlation can be identified between the relative present and future importance of products and services (.756**). The positive direction indicates that people cannot, yet, envision, a fundamental change in business. It can further be noted, although not significant, that the direction of an increasing importance of services in the future is positive for the present importance. However, this picture changes when considering the relative importance of expected services.

Table 5: General Pearson Chi-Square Correlation Table

	Present More Importance	Future More Importance	Increase of Service Importance	Total Service Importance	Relative Importance of Expected Services	Value of New Services	Need	Readiness
Present More Importance	1							
Future More Importance	.756**	1						
Increase of Service Importance	.306	.437	1					
Total Service Importance	-.133	-.191	.119	1				
Relative Importance of Expected Services	-.079	-.479	-.589*	-.020	1			
Value of New Services	.015	.049	.423	.088	-.060	1		
Need	.203	.351	.452	.417	-.496	-.185	1	
Readiness	-.436	-.623*	-.337	-.170	.551*	.019	-.344	1

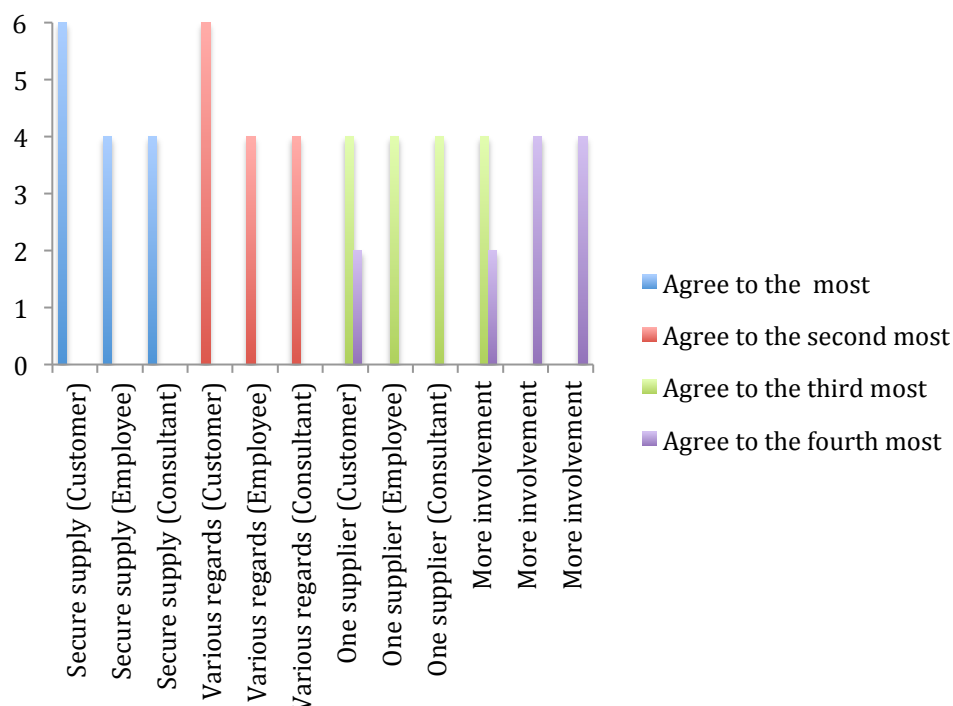
** p < 0.01 level

* p < 0.05 level

The significant negative correlation between *Relative Importance of Expected Services* and *Increase of Service Importance* of $(-.589^*)$ implies that the more importance that is accredited to services in the future, the less important the expected services are considered. This means that new services may play an important role in the future as the correlation of $(.423)$ of *Value of New Services*, though non-significantly, also hints at. These possibly new services that may be of high value to the customer encounter difficulty in readiness to adapt to these as the significant correlation of $(-.623^*)$ between *Future More Importance* and *Readiness* hints at. The last significant correlation that can be identified is between *Readiness* and *Relative Importance of Expected Services* $(.551^*)$. As the services that are currently being offered have evolved during the course of time in order to promote products sales, customers are certainly willing to adapt their business to changes by the supplier, even if that results in challenges for the customers as well, as long as it adds to their bottom-line, eventually.

In a last step, the participants were asked to rank four statements according to which the customers would agree to the most. The respective rankings are illustrated in Figure 3.

Figure 3: Statements Ranking

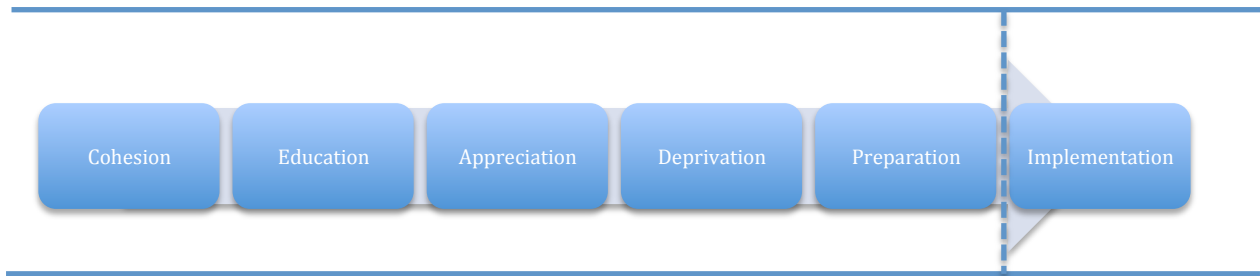


The four statements were framed as follows: “I want secure supply in the future” (Secure supply), “I would not mind sticking to only one supplier in the future” (One supplier), “I want my supplier to be able to help me out with my business in various regards” (Various regards), “I want my supplier to take more responsibility in my business” (More responsibility). All participants agreed to Secure supply the most, followed by a uniform consensus on various regards ranked number two. Whereas all consultants consider more responsibility to be least applicable, the customers would disagree the most to sticking to only one supplier. This picture further supports the notion that participants have difficulty imagining a change in business and would require education.

6. Discussion

This research set out to explore the need of suppliers to become more service-oriented along with the customers’ readiness to adapt their business to such a change in order to derive strategic implications for the supplier. Due to the small sample size employed in this exploratory research design, the findings need to be discussed and interpreted with caution. However, insights from interviews lead to a suggested proposition path (Figure 4) for the supplier for a servitization of his business. This suggestion is primarily based on the findings that services are becoming more important, consultants see a high need for a servitization of supplier and that customers showed relatively high readiness to adapt to such a change. Furthermore, the entire industry is characterized by very short-term cost-driven thinking due to a mentality of constant benchmarking against each other in order to assess success. As this requires suppliers to compete in prices, these propositions aim at guiding a path to escaping this dilemma.

Figure 4: Proposition Path



As depicted in Figure 2, employees themselves consider the need for a stronger service orientation for their customers rather low. Considering that servitization moves have not consistently proven successful for suppliers and that diverse combined competences are necessary in order to implement such a paradigm shift in doing business, internal supplier goals need to be aligned to one common goal. As has become evident from the interviews, selling services also requires the supplier staff to be dedicated to this goal. Little consensus on whether a servitization of their business is actually considered a proper option for the future was found in the interviews. This was further supported by low need and readiness (Table 3 and Table 4). Thus, the first proposition that serves as prerequisite for the supplier to implement such a change (Kotter, 1996) is framed as follows:

Proposition 1 (Cohesion)

The successful transition to selling services requires mutual consensus on the supplier's side for implementing such a paradigm shift in doing business.

As has become quite clear in the interviews, products in the animal health industry are becoming commodities and customers find it hard or even impossible to distinguish between them and their effects. Hence, it is of no surprise that services are accredited an increasing importance in this industry. However, a product-centric thinking seems still prevalent as products are still considered more important than services in the future. As many services have simply evolved in this industry during the course of time and are taken for granted, customers also stated that they expect this development to continue in the future. However, interviewees also frequently stated, that they are not as aware of the services that are being

performed for them as well as they are not aware of the costs they are saved by this. Customers also agreed that a reporting and education on this may be useful for them. As many suppliers within this industry offer many similar basic services, an education of customers by making them more aware of services and the lower expenses for them may play an important role in supplier choice. Thus the second proposition is stated as follows:

Proposition 2 (Education)

Making customers more aware of the services and their respective economic value to the customers will increase the customers' value of the services.

Similar to products, some services are increasingly becoming commodities themselves. As price competition in products and services is becoming fierce in this industry, customers themselves are being put under increasing pressure themselves. As the interviews revealed assistance of economic decision-making and more tailored problem solving are services that would be highly valued and even lead to an extra willingness to pay for these. Due to industry specifics, a very short-term thinking with regard to solely costs in the purchase decisions of vaccines seems dominant. In order to thus avoid competing only in price with services common to the business, implementing and disentangling extraordinary services from the common ones may prove another source of revenue for the supplier and also lead to greater appreciation by the customer. Thus, the third proposition is stated as follows:

Proposition 3 (Appreciation)

A separate offering of extraordinary services will lead to greater appreciation by customers of services by the supplier.

Despite customers' lower need for a stronger service orientation of their supplier, customers also stated concerns that with ever newly emerging diseases they want a strong, dependable partner. The ranking in Figure 3, which showed that customers want their suppliers to be able to help them out in various regards, also supports this. As customers get used to the services by this supplier-partner, they become more dependent on them and thus

increase their need of services from him. Therefore, the fourth proposition is stated as follows:

Proposition 4 (Deprivation)

Through extraordinary services that are scarce, customers will become used to these and thus show an increased need for them.

As has been argued, the stronger service orientation by suppliers also leads to changes for the customers. As customers have adapted to changes within the industry, the findings also showed that they are willing to make such transitions as long as it pays off for them. Additionally to their willingness to make such changes in business, challenges in making this transition are also present, which caused lower readiness. Therefore, assisting customers in terms of preparing them for such a change is essential to a successful implementation. Therefore, the last proposition is stated as follows:

Proposition 5 (Preparation)

The eventual implementation of a stronger service orientation requires a thorough preparation of customers by suppliers.

7. Theoretical Contributions and Managerial Implications

Research on servitization up to this point is still considered new (Barnett et al., 2013). Considering that services represent more than 70% of the gross domestic product in some countries (Ostrom et al., 2010), this research in general adds to a growing interest in practical as well as academical research (Grove, Fisk, & John, 2003; Ostrom et al., 2010).

Furthermore it addresses the little attention that has been paid to the customer in this field of research (Alam & Perry, 2002; Lundkvist & Yakhief, 2004). In this same regard this research also contributes as to that “new service provision could benefit from the collection and use of customer knowledge and skills“ (Ordanini & Parasuraman, 2011, p. 5).

As has been stated, this study further contributes as it addresses the topic of servitization before an implementation. This is further complemented by the business-to-business context, which to date has received less attention.

Building upon these theoretical contributions the study advanced to give managerial implications in various regards. First of all, it considers reasons for a possible failure of a servitization move. By incorporating customers up front, companies are better able to assess the necessary step to increase the chances of a successful implementation of a servitization of their business. The insights from the interviews in this regard led to the creation of five propositions that managers may take into account for such a change in their business.

Additionally, considering that companies believe to have found a panacea for doing profitable business by simply becoming more service-oriented (Barnett et al., 2013), this research addresses exactly this case and gives recommendations as to how to possibly avoid failure. This was especially depicted in step one of the proposition path.

8. Limitations and Outlook

This research uses in-depth interviews in order to explore the customers' need for and readiness to adapt to a servitization of their supplier. Whereas the 14 interview partners were carefully selected, the specific interview groups consisted of six participants at the most, which is represented in the violations of any Chi-Square test as stated up front in the data analysis section. Not only would a larger sample size be beneficial for future research, but also an additional quantitative part, which unfortunately had to be canceled within this research due to unforeseen developments in the industry, would allow for validation.

Whereas the choice of only one single case and industry avoids interindustry bias, the possibility of generalizability is thus limited. Hence, widening the scope of this research over more cases and industries would be interesting as the North American animal health industry

is yet coined by very short-term thinking when it comes to costs. In this regard, a longitudinal approach would allow to directly link the antecedents and effects of a servitization move.

Considering that the concept of servitization represents a radical paradigm shift for doing business in this industry, it also needs to be mentioned that the four telephone interviews with consultants, which were not able to held in person by any means, did not allow for as detailed and vivid discussion as the face-to-face interviews.

Additionally, almost all interview partners were from upper management. Despite their previous experience from lower-level positions, incorporating lower-level staff may be beneficial as the servitization of a business affects the entire value chain of the processes of the involved parties.

It also needs to be stated that a current shortcut of supply may have had an impact on the opinions by customers. Although some customers were affected less than others by this shortcut and concerns from all customers were sensed similarly, a bias from this situation must taken into account as well. Therefore, an analysis at with no scarcity of vaccines present could possibly lead to additional insights.

Lastly, applying this research to the supplier's side may be of high interest as well. Insights from the different interview groups call for further research on the supplier side as employees do not seem to show a uniform opinion on the benefits on such a transition. As has been argued, however, this is crucial for a successful implementation.

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10. Appendices

Appendix A: Exemplary Interview Transcript

Participant: Customer

Type: Face-to-face

Introduction to each other and to the purpose of the interview

INTERVIEWER	What are the main products that you currently demand?
INTERVIEWEE	Feed and a lot of vaccine. Autogenous vaccines. And we are pretty engaged with all of them. Ceva, Merial, Lohman, Merck, Zoetis, you name it.
INTERVIEWER	Do you demand any services from your animal health suppliers?
INTERVIEWEE	But we do periodic checks. I like my tech support to come in and help me. We see more together. In all areas, We always keep learning. Machine support for example is something we rely upon. But in general, making sure everything works properly is probably what the service is for. Occasionally we do special projects. Over the years we have used some autogenous vaccines. Sometimes we come across a new problem, and a tech person has seen that elsewhere and we compare notes, what works well. Usually, when there is a problem, the tech support jumps right in and tries to solve it.
INTERVIEWER	How would you define products and services?
INTERVIEWEE	A product is a physical something a service is something that the personnel comes in and gives us assistance with.
INTERVIEWER	So how much does your business depend on products and services from your animal health suppliers?
INTERVIEWEE	Well it is for the prevention, it is like an insurance for our business. So most of the things that we do and the products and services we use are to minimize and prevent known, identified threats. And address emerging concerns. We want to minimize their impact.
INTERVIEWER	What about services?
INTERVIEWEE	When they come in to help with the surveillance that is to make sure that everything is under control. Or if a change does occur and a new problem emerges, I call them to solve the problem and identify the cause. Several bronchitis vaccines have evolved from this in the past year. But in fact, about 34 veterinarians in cover about 87% of the market in this industry
INTERVIEWER	Are these people employed by specific production companies or farms?
INTERVIEWEE	Yes, they are full-time employees by production companies. The large ones mostly, obviously. But there is a small group that knows each other very well.
INTERVIEWER	So how much importance would you accredit to products on the one hand and services on the other hand to your business? Please give it a ratio.
INTERVIEWEE	I would say 80% products, 20 % service

INTERVIEWER Why would you say so?

INTERVIEWEE Well, we cannot make any of the products ourselves, but we can provide most of the services to ourselves.

INTERVIEWER When you think of the future, would you imagine that the importance of products and services would change?

INTERVIEWEE I think it is already changing. The price of feed is going way up. And so that has made the efficiency of production even more important. So we look for return on investment to somehow make money for us. We respond to a small segment of consumers so that is going to make other alternatives very important. I think demand for products and services will increase. Especially the technical service with boots on the ground will increase. Company veterinarians are being spread thinner and thinner; that is driven by economics.

INTERVIEWER So you would see that job to be handled more and more by suppliers in the future?

INTERVIEWEE Yes

INTERVIEWER So if you had to put it into number, what would the ratio of the importance of products services look like in the future?

INTERVIEWEE The products are still major emphasis, the services are just support. We are billed for products not the services. They are expected. So overall I would say 60% products, 40% services.

INTERVIEWER Why would you consider that the importance of products will increase?

INTERVIEWEE There are a very few private industrial practices. The services market has not developed yet, there is very few. I have always thought there is opportunity for business. If the right person tried to develop it, there would be a great opportunity. Because we expect things from the providers of our products.

INTERVIEWER So what is important to you at when it comes to services?

INTERVIEWEE Proactivity and relationship. Everything else we can pretty much do ourselves. I mean, the technical staff needs to be good. It needs to help us out with things we cannot do ourselves.

INTERVIEWER So I would like to dig deeper into service now and please keep in mind the following statement
“services are performed rather than produced and are essentially intangible”

INTERVIEWEE Yes, I would agree to that.

INTERVIEWER How important are suppliers services to you.

INTERVIEWEE Somewhat important

INTERVIEWER Do you actively ask for services?

INTERVIEWEE We do. Checking the pullet crews. Sometimes they also approach us and we also expect that.

INTERVIEWER Do you think you are aware of most of the services that are performed for you?

INTERVIEWEE I think we are. The routine maintains and trouble-shooting.

INTERVIEWER Could you also think of services that you are not so aware of possibly? That you take for granted?

INTERVIEWEE The stuff that goes on behind the scenes, the quality control, delivery, timely delivery, maintaining the cool chain, those things that are not a tangible thing, but they are very important. Those kinds of things you just expect.

INTERVIEWER How important are these relative to those that you are aware of.

INTERVIEWEE More important actually

INTERVIEWER Can you also think of services, that are not being offered yet?

INTERVIEWEE Yeah, more help with diagnosis. So more of the autogenous vaccine service, also proactively would be very good

INTERVIEWER How valuable would this be?

INTERVIEWEE I guess extremely valuable. You would not use it every day, but then it is extremely valuable

INTERVIEWER Would you want your supplier to be more service-oriented?

INTERVIEWEE Yes, especially when it comes to diagnosis.

INTERVIEWER Do you think that would change your business?

INTERVIEWEE Yeah, we would use that. We would be very keen on using that.

INTERVIEWER What would be the advantages of that?

INTERVIEWEE More timely and accurate identification of the actual cause and source of a problem. That would allow you to respond to it. It would be more effective.

INTERVIEWER Could you also think of any challenges?

INTERVIEWEE I think it would decrease the challenges. But the question is, who is going to pay for it. Would they increase the prices of the products or charge for the service?

INTERVIEWER Would you be willing to pay for that service?

INTERVIEWEE I think we would, but I doubt many companies would

INTERVIEWER Do you think that would increase the dependability on your supplier?

INTERVIEWEE Possibly. I think I would be rather in favor for a separate fee for services to avoid that dependability.

INTERVIEWER Would you say that you are ready at this point to adapt to a greater service orientation of your supplier?

INTERVIEWEE I think I would give it a serious consideration

INTERVIEWER Could you imagine that the way you and your suppliers do business would change in any way?

INTERVIEWEE Yes, I think so, generally. I mean, we would get closer.

INTERVIEWER Do you think that this would require any change from your side?

INTERVIEWEE Probably so.

INTERVIEWER What about your internal processes and staff, would they be affected by any changes?

INTERVIEWEE Maybe, but I cannot not see how exactly

INTERVIEWER I would now like to ask you how you understand the following sentence “In the future suppliers sell service not products”

INTERVIEWEE I think that just says, what I just said. The diagnostic model would become more profitable, more common. I guess, although I have said that I would like to see that, I sort of doubt that it will happen. The current model expects services.

INTERVIEWER Why will it continue if you appreciate it so much?

INTERVIEWEE I think this suggested paradigm is just not well recognized or considered. It represents a shift that a lot of people would not accept. Because the current model is so expected.

INTERVIEWER Do you think the people would unwilling to adapt to that?

INTERVIEWEE Yes, because they are used to getting the service for free.

INTERVIEWER Would you see a difference here between larger and smaller production companies?

INTERVIEWEE You would think, because larger farms have much more difficulty in addressing problems in person. But they are even more used to getting

the current model, so I would doubt that. I know that Elanco seems to have embedded a technical service person at Pilgrims. This Elanco employee is available to them anytime.

INTERVIEWER Would you want that?

INTERVIEWEE No, I would not want that. It is a control situation. We are responsible for what we do. If I had an assistant I would rather have that person be my employee and report to me. It would create a huge obligation to the company's part to that supplier. But that is a paradigm shift in the industry. We need to be free to choose a product, not be tied to anyone.

INTERVIEWER Would that change your wants and needs towards your supplier?

INTERVIEWEE I think the relationships are already pretty close and pretty good. What I am looking at, we want to advance the service component, more scientific diagnostic type services that are currently not being offered yet.

INTERVIEWER Is that what you are ultimately looking for?

INTERVIEWEE At this point I would say so, yes.

INTERVIEWEE What if this does not happen in the future?

INTERVIEWER That is ok, it does not have to, we can do very well without. I just say, that it would make it easier and better.

INTERVIEWER So what would be the greatest advantage for you?

INTERVIEWEE Faster and, I would say in general more complete.

INTERVIEWER What I would like you to do now, is rank these 4 statements according to which you agree to the most.

INTERVIEWEE I want secure supply in the future, I want my supplier to help me out in various regards, I want my supplier to take more responsibility in my business, I would not mind sticking to only one supplier

INTERVIEWEE Why this order?

INTERVIEWER Well, if I do not have vaccines, I cannot do any business. And that is a crucial issue these days. As I said, it would be great if my supplier helped out in various fields, but really there is no need to get involved in everything more, more the special demands. The responsibility would be nice, but it would mean that I have to trust him, or that I have some kind of guarantee. That is probably one of the changes you hinted at earlier. But I really want more suppliers; I cannot run the risk of running out of product.

INTERVIEWER So, how are the current services being communicated to you?

INTERVIEWEE Most of them we are aware of that they are there. The suppliers will periodically communicate directly, either through tech service or sales reps that they got a new service. But it strikes me now that we talk about it, that there is no formal or regular communication. Also an update on a service they are doing a competitor, we can help you with that.

INTERVIEWER Would you like to see more communication about that?

INTERVIEWEE Yeah, that would be nice. More communication would be helpful

INTERVIEWER In which form?

INTERVIEWEE Either face-to-face or phone calls or emails.

INTERVIEWER Would any regular report be of value to you?

INTERVIEWEE Yeah, that would be interesting. Never thought of that. When we do one of these scheduled projects we get a good report. But that does not happen very often. Regular reports what they see in the industry would be an interesting service.

- INTERVIEWER Could you also use that to report to your superior?
- INTERVIEWEE Yes, certainly. Backup and validation of what you are saying never hurts. Also that we are not the only ones with problems.
- INTERVIEWER So what would you consider most important for Ceva to work on regarding its services at this point?
- INTERVIEWEE They do a pretty good job. What intrigues me most, is the area where they already do more than their competitors is the diagnostic service. That would gain them a lot of credibility and increase the opinion of them in this industry that we already have. Make it more accessible. I would encourage them to work on that.
- INTERVIEWER Must they do it?
- INTERVIEWEE It would be my advice and would give them a great advantage over the competition. Because when it gets down to price, it is going to get tough. So I recommend to get even better of what they are already doing well rather than just going in every direction.

The interview was then closed.

Summary

Duration: 54 Minutes

Importance of products and services

Currently: More importance products

Future: More importance products, but increase in service importance

Importance of service to their business: Somewhat important

Relative of service that that are not aware of / expect to those that they are aware of / expect:

More important

Value of not yet offered services: Extremely valuable

Ranking of statements

1. I want secure supply in the future
2. I want my suppliers to help me out in various regards
3. I want my supplier to take more responsibility in my business
4. I would not mind sticking to only one supplier

Coding for Need and Readiness

Need for stronger service-orientation by suppliers	Low	High
	x	
Readiness to adapt to a stronger service-orientation by suppliers	Low	High
		x

Appendix B: Exemplary invitation letter

October 11, 2013

Dear invitee,

In an effort to continue to provide you with high quality products and services, Ceva has undertaken a project to better understand the services you use and discuss potential new services to improve issues your company may have within the field of animal health. We are working closely with the international research group Service Science Factory (SSF) from the Netherlands to conduct interviews to help us uncover customer views on current or potential services.

We would like to encourage you to participate in an interview with Moritz Trüg from the Service Science Factory, who will be conducting interviews in the next few days for his Master Thesis. The interview will take maximum 1 hour. Your response is anonymous and will only be shared with the interviewer.

If you have any further questions concerning this project, please do not hesitate to contact me or your Ceva representative directly.

We thank you in advance for your cooperation with this important project and for your continued use of our products and services.

Kind regards,

Rick van Oort
Director of Marketing
Rick.van-oort@ceva.com

Marshall Putnam
Technical Director
Marshall.putnam@ceva.com

Appendix C: General interview guideline

1. Introduction
 - a. Interviewer, interview purpose and framework, interviewee
2. Services (in general)
 - a. What products and services do customers demand from their suppliers?
 - b. How would you define “products“?
 - c. How would you define “services“?
 - d. How much does the customers’ current business depend on these products and services?
 - e. How important are products and services to the customers business in relative terms? (Today, Future)
3. Services (need)
 - a. How important are the suppliers’ services to you? (7-point Likert scale)
 - b. Do customers actively ask for services from their supplier or are they offered and performed to them?
 - c. What services do customers demand?
 - d. Do customers need more services from their supplier / a stronger service orientation?
 - e. Are customers aware of services performed for them?
 - f. Can you think of services that might possibly be performed by suppliers that customers are not aware of
 - g. How important are these services to customers in relation to those that customers are aware of? (7-point Likert scale)
 - h. What services would customers find valuable that are not offered, yet?
 - i. How valuable do customers consider these services? (7-point Likert scale)
4. Services (Readiness to adapt)
 - a. Do you think customers’ business/the way customers operate would change/ would need to be adapted?
 - b. What would be the greatest advantages for customers if suppliers extended their service offering to customers?
 - c. What would be the greatest challenges for customers if suppliers extended their service offering to customers?
 - d. Do you think customers are ready to base their business more / to a very large extent on services from their suppliers?
 - e. How do you understandIn the future, suppliers will sell services and not products.”
5. Implications
 - a. In what way would such a service-orientation impact the business between you and your supplier?
 - b. Would your wants and needs towards your supplier change?
 - c. What is it that you ultimately look for from your supplier?
 - d. Please rank the following statements according to what applies to you the most “I want secure supply in the future”, “I would not mind sticking to only one supplier in the future”, “I want my supplier to be able to help me out with my business in various regards”, “I want my supplier to take more responsibility in my business”
6. Closure

Appendix C: Interview overview

Interviewee	Interview Type	Duration
<i>Customer</i>	<i>Face-To-Face</i>	<i>1 hour 3 Minutes</i>
<i>Customer</i>	<i>Face-To-Face</i>	<i>1 hour 3 Minutes</i>
<i>Customer</i>	<i>Face-To-Face</i>	<i>54 Minutes</i>
<i>Customer</i>	<i>Face-To-Face</i>	<i>48 Minutes</i>
<i>Customer</i>	<i>Face-To-Face</i>	<i>56 Minutes</i>
<i>Customer</i>	<i>Face-To-Face</i>	<i>51 Minutes</i>
<i>Employee</i>	<i>Face-To-Face</i>	<i>48 Minutes</i>
<i>Employee</i>	<i>Face-To-Face</i>	<i>59 Minutes</i>
<i>Employee</i>	<i>Face-To-Face</i>	<i>55 Minutes</i>
<i>Employee</i>	<i>Face-To-Face</i>	<i>1 hour 5 Minutes</i>
<i>Consultant</i>	<i>Phone</i>	<i>41 Minutes</i>
<i>Consultant</i>	<i>Phone</i>	<i>50 Minutes</i>
<i>Consultant</i>	<i>Phone</i>	<i>50 Minutes</i>
<i>Consultant</i>	<i>Phone</i>	<i>38 Minutes</i>

Appendix E: Coding Scheme

Topic	Number of codes	Coding categories
Present More Importance	3	1= products presently more important; 2= products and service presently equally important; 3= services presently more important
Future More Importance	3	1= products in the future more important; 2=products and service in the future equally important; 3= services in the future more important
Increase of Service Importance	2	1= importance of services does not increase in the future; 2= importance of services increases in the future
Total Service Importance	7 (pre-defined Likert scale)	1= not at all important; 2= very unimportant; 3= somewhat unimportant; 4= neither important nor unimportant; 5= somewhat important; 6= very important; 7= extremely important
Relative Importance of Expected Services	7 (pre-defined Likert scale)	1= much less important; 2= less important; 3= somewhat less important; 4= same importance 5= somewhat more important; 6= more important; 7= much more important
Value of New Service	7 (pre-defined Likert scale)	1= not valuable at all; 2= very invaluable; 3= somewhat invaluable; 4= neither valuable nor invaluable; 5= somewhat valuable; 6= very valuable; 7= extremely valuable
Need for servitization	2	1= low need for servitization 2= high need for servitization
Readiness for servitization	2	1= low readiness to adapt to servitization 2= high readiness to adapt to servitization

Appendix F: Chi-Square Test of Need for Servitization

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.535 ^a	2	.023
Likelihood Ratio	9.216	2	.010
Linear-by-Linear Association	4.266	1	.039
N of Valid Cases	14		

a. 6 cells (100.0%) have expected count less than 5. The minimum expected count is 1.71.

Appendix G: Chi-Square Test of Readiness for Servitization

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.370 ^a	2	.006
Likelihood Ratio	12.842	2	.002
Linear-by-Linear Association	.000	1	1.000
N of Valid Cases	14		

a. 6 cells (100.0%) have expected count less than 5. The minimum expected count is 1.43.